

## AMENDMENTS TO THE CLAIMS

1. (Currently amended) A refractory liner for a vessel comprising:  
a generally cylindrical metal shell having a dome;  
a refractory liner having a cylindrical portion spaced inwardly from said shell and a dome portion spaced inwardly from the dome of said shell, said refractory liner being sized to provide an expansion gap between said liner and said shell; and a selectively crushable material positioned in said gap, said material having a predetermined yield stress that will provide controlled resistance to expansion of said refractory ~~shell~~ liner resulting from the chemical growth of said liner, said material extending along the entire height of the shell and the liner.
2. (Original) The apparatus of Claim 1, wherein said yield stress ranges from 0.5 to 4.0 MPa.
3. (Original) The apparatus of Claim 1, wherein said yield stress ranges from 1.0 to 3.0 MPa.
4. (Currently amended) The apparatus of Claim 1, wherein said yield ~~stress ranges~~ stress ranges from 1.5 to 2.5 MPa.
5. (Original) A refractory liner for a vessel comprising:  
a generally cylindrical metal shell having a dome;  
a refractory liner having a cylindrical portion spaced inwardly from said shell and a dome portion spaced inwardly from the dome of said shell, said refractory liner being sized to provide an expansion gap between said liner and said shell; and a selectively crushable material positioned in said gap, said material having a predetermined yield stress that will provide controlled resistance to expansion of said refractory shell resulting from the chemical growth of said liner, wherein said crushable material comprises and crushable metal foam.

6. (Currently amended) The apparatus of Claim 5, wherein said foam comprises an allow alloy of iron, chromium, aluminum and yttrium.

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>LLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100